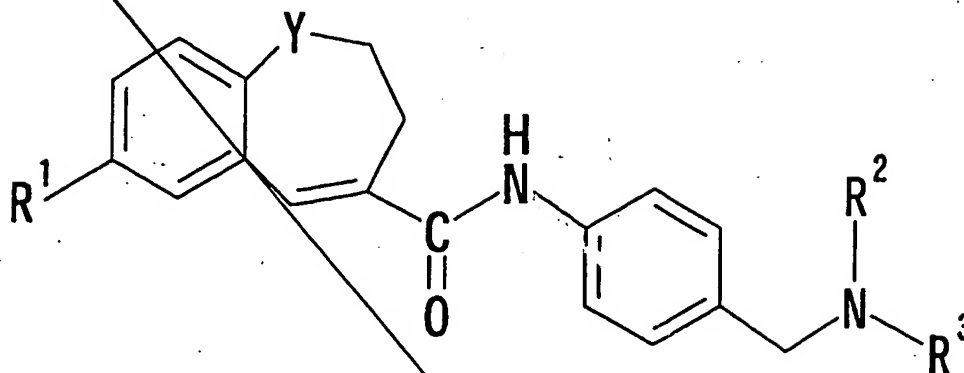


WHAT IS CLAIMED IS:

1. A compound of the formula (I):



wherein R<sup>1</sup> is a 5- to 6-membered aromatic ring which has  
 5 a group of the formula: R-Z<sup>1</sup>-X-Z<sup>2</sup>- wherein R is a hydrogen  
 atom or an optionally substituted hydrocarbon group, X is  
 an optionally substituted alkylene chain, and Z<sup>1</sup> and Z<sup>2</sup>  
 are respectively hetero-atoms, and which may have a  
 further substituent, the group R may bind to the 5- to 6-  
 10 membered aromatic ring to form a ring, Y is an optionally  
 substituted imino group, R<sup>2</sup> and R<sup>3</sup> are respectively an  
 optionally substituted aliphatic hydrocarbon group or an  
 optionally substituted alicyclic heterocyclic group; or a  
~~salt thereof.~~

15 2. A pro-drug of the compound according to claim 1  
 or a salt thereof.

3. The compound according to claim 1, wherein the 5-  
 to 6-membered aromatic ring is benzene, furan or  
 thiophene.

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4. The compound according to claim 1, wherein the 5-  
to 6-membered aromatic ring is benzene;

5. The compound according to claim 1, wherein R is  
an optionally halogenated lower alkyl group.

5 6. The compound according to claim 1, wherein X is -  
(CH<sub>2</sub>)<sub>n</sub>- (n is an integer of 1-4).

7. The compound according to claim 1, wherein Z<sup>1</sup> and  
Z<sup>2</sup> are respectively -O-, -S(O)<sub>m</sub>- (m is an integer of 0-2)  
or -N(R<sup>4</sup>)- (R<sup>4</sup> is a hydrogen atom or an optionally  
10 substituted lower alkyl group).

8. The compound according to claim 1, wherein Z<sup>1</sup> is -  
O- or -S(O)<sub>m</sub>- (m is an integer of 0-2).

9. The compound according to claim 1, wherein Z<sup>1</sup> is -  
O-.

15 10. The compound according to claim 1, wherein Z<sup>2</sup> is  
-O- or -N(R<sup>4</sup>)- (R<sup>4</sup> is a hydrogen atom or an optionally  
substituted lower alkyl group).

11. The compound according to claim 1, wherein Z<sup>2</sup> is  
-O-.

20 12. The compound according to claim 1, wherein Y is  
-N(R<sup>5</sup>)- (R<sup>5</sup> is a hydrogen atom, an optionally substituted  
hydrocarbon group or an optionally substituted acyl  
group).

25 13. The compound according to claim 12, wherein (R<sup>5</sup>)  
is C<sub>1-4</sub> alkyl, formyl or C<sub>2-5</sub> alkanoyl.

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14. The compound according to claim 12, wherein  $R^5$  is a group represented by the formula  $-(CH_2)_k-R^6$ : wherein  $k$  is 0 or 1, and  $R^6$  is an optionally substituted 5- to 6-membered monocyclic aromatic group.

5 15. The compound according to claim 1, wherein  $R^2$  is an optionally substituted straight chain hydrocarbon group.

16. The compound according to claim 1, wherein  $R^2$  is an optionally substituted lower alkyl group.

10 17. The compound according to claim 1, wherein  $R^3$  is an optionally substituted alicyclic hydrocarbon group or an optionally substituted alicyclic heterocyclic group.

18. The compound according to claim 17, wherein the alicyclic hydrocarbon group is a lower cycloalkyl group.

15 19. The compound according to claim 17, wherein the alicyclic hydrocarbon group is cyclohexyl.

20. The compound according to claim 17, wherein the alicyclic heterocyclic group is a saturated alicyclic heterocyclic group.

20 21. The compound according to claim 17, wherein the alicyclic heterocyclic group is tetrahydropyranyl, tetrahydrothiopyranyl or piperidyl.

22. The compound according to claim 17, wherein the alicyclic heterocyclic group is tetrahydropyranyl.

25 ~~23. A compound selected from the class consisting of~~

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~~7-(4-ethoxyethoxyphenyl)-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-ethyl-7-(4-propoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-ethyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-ethoxyethoxyphenyl)-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-formyl-7-(4-propoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-formyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-1-propyl-2,3-dihydro-1-benzazepine-4-carboxamide, N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-(4-propoxyethoxyphenyl)-1-propyl-2,3-dihydro-1-benzazepine-4-carboxamide, 1-benzyl-7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-cyclopropylmethyl-N-[4-[[N-methyl-
 ]~~

contd.

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- N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-phenyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(3,4-methylenedioxy)phenyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(2-methyloxazol-5-yl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-allyl-7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(3-thienyl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-2-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(1-methylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-(3-methylisothiazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-

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- carboxamide, 7-(4-butoxyethoxyphenyl)-1-(1-ethylpyrazol-4-yl)methyl-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-1-isobutyl-N-[4-  
5 [[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-2,3-dihydro-1-benzazepine-4-carboxamide, 1-isobutyl-N-[4-[[N-methyl-N-(tetrahydropyran-5-yl)amino]methyl]phenyl]-7-(4-propoxyethoxyphenyl)-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-  
10 (tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(thiazol-5-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, 7-(4-butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(1-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, and 7-(4-  
15 butoxyethoxyphenyl)-N-[4-[[N-methyl-N-(tetrahydropyran-4-yl)amino]methyl]phenyl]-1-(2-methyltetrazol-5-yl)methyl-2,3-dihydro-1-benzazepine-4-carboxamide, or salt thereof.

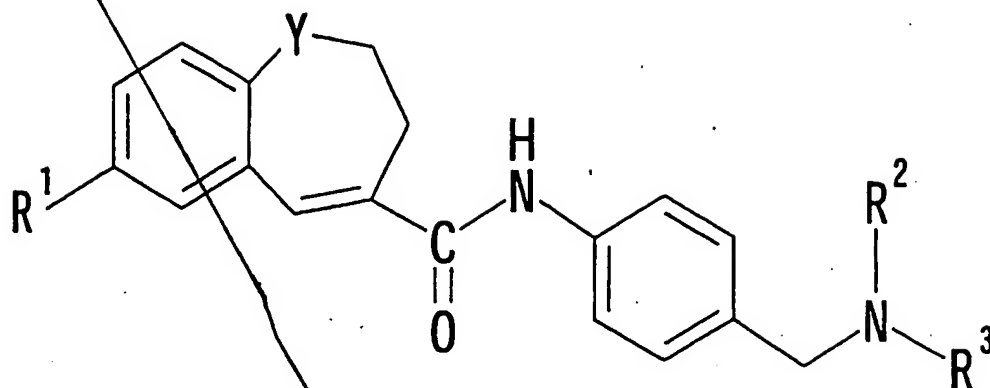
24. A pro-drug of the compound according to claim 23 or a salt thereof.

- 20 25. A method for producing a compound of the formula:

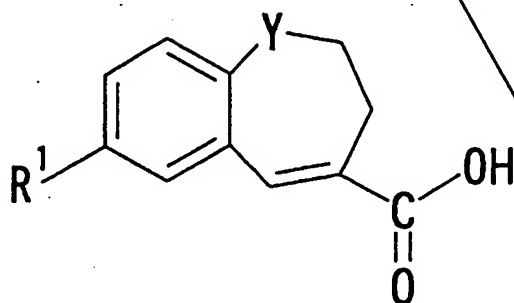
~~formula:~~

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a<sup>7</sup>

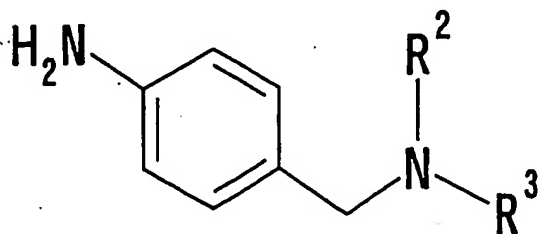


wherein each symbol is as defined in claim 1, or a salt thereof, which comprises subjecting a compound of the formula:



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wherein each symbol is as defined in claim 1, a salt or a reactive derivative thereof to a condensation reaction with a compound of the formula:



10 wherein each symbol is as defined in claim 1, or a salt,

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thereof.

26. A pharmaceutical composition which comprises the compound according to claim 1 or a salt thereof.

27. The composition according to claim 26, which is  
5 a CC chemokine receptor antagonist.

28. The pharmaceutical composition according to claim 26, which is a CCR5 antagonist.

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29. The composition according to claim 26, which is  
10 for the treatment or prevention of infectious disease of HIV.

30. The composition according to claim 26, which is  
for the treatment or prevention of AIDS.

31. The composition according to claim 26, which is  
for the prevention of the progression of AIDS.

15 32. The composition according to claim 29, which is used in combination with a protease inhibitor and/or a reverse transcriptase inhibitor.

33. The composition according to claim 32, wherein  
20 the reverse transcriptase inhibitor is zidovudine, didanosine, zalcitabine, lamivudine, stavudine, nevirapine, delavirdine, efavirenz or abacavir.

34. The composition according to claim 32, wherein  
the protease inhibitor is saquinavir, ritonavir,  
indinavir or nelfinavir.

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25 ~~35. Use of the compound according to claim 1 or a~~



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salt thereof in combination with a protease inhibitor  
and/or a reverse transcriptase inhibitor for the  
~~treatment or prebention of infectious disease of HIV.~~

36. A method for antagonizing a CC chemokine  
5 receptor in a mammal, which comprises administering an  
effective amount of a compound according to claim 1 or a  
salt thereof to a mammal.

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37. Use of a compound according to claim 1 or a salt  
thereof in preparation of a medicament for antagonizing a  
10 ~~CC chemokine receptor.~~

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